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REPORT  
OF THE  
PARK COMMISSION  
OF  
ESSEX COUNTY, N. J.  
1904-1905





ESSEX COUNTY, NEW JERSEY

Department of Parks

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Ninth and Tenth Annual Reports

OF THE

Board of Commissioners

Appointed under the Act,  
Approved March 5, 1895

1904=1905

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MATTHIAS PLUM  
PRINTER  
NEWARK, N. J.



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## Commissioners and Officers

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CYRUS PECK,	-	-	-	Term Expires	1906
ROBERT S. SINCLAIR	-			"	1907
FREDERICK M. SHEPARD,				"	1908
JOHN R. HARDIN,	-	-		"	1909
*ROBERT F. BALLANTINE,				"	1910

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### PRESIDENT

CYRUS PECK.

### VICE-PRESIDENT

FREDERICK M. SHEPARD.

### TREASURER

JOHN R. HARDIN.

### SECRETARY

ALONZO CHURCH.

### ENGINEER

A. M. REYNOLDS, JR.

### SUPERINTENDENT

WILLIAM S. MANNING.

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\*Died December 10, 1905. Franklin Murphy appointed to succeed him.





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ROBERT F. BALLANTINE

PARK COMMISSIONER DEC. 24<sup>TH</sup> 1901 TO DEC. 10<sup>TH</sup> 1905



# REPORT.

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800 BROAD ST., NEWARK, N. J.

January 1st, 1906.

The Essex County Park Commission presents herewith its ninth and tenth annual reports.

Since the publication of the last report there has been another change in the personnel of the Board. Mr. William A. Brewer Jr. who was appointed a Commissioner in 1900 by the late Chief Justice Depue on the resignation of Mr. George W. Bramhall, and reappointed for a full term in 1902 resigned in May 1905, in view of the fact that he was about to start on an extended European trip. Mr. Robert S. Sinclair of South Orange was appointed by Chief Justice Gummere as his successor.

The Board, also is called upon for the third time in less than three years to record the death of one of its members. Mr. Robert F. Ballantine, who was appointed in 1901 to fill out the unexpired term of Mr. Franklin Murphy elected Governor of the State, and reappointed in 1905 for a full term of five years, died on December 10th, 1905. Mr. Ballantine was deeply interested in the park undertaking and was the donor of the Robert F. Ballantine Gateway, the handsome entrance to the Northern Division of Branch Brook Park. None appreciated more than his colleagues Mr. Ballantine's sterling worth, and the Commission will greatly feel his loss. The following minute was adopted at a meeting called for that purpose:

"The Essex County Park Commission desires to record its sincere sorrow at the death of Robert F. Ballantine, for four years a member of this Board.

Mr. Ballantine's interest in the development of the park system was very great, even before his appointment as Commissioner, and he gave practical evidence of it by his generous gifts to the undertaking, prominent among them being the Ballantine Gateway, at Branch Brook Park, which will always remain a lasting monument to his public spirit and his munificence.

The Board feels that his loss will be a great one to the County and especially to this Commission. His careful attention to the work of the Board, his conservative judgment, his wide business ability and his wise counsel will be greatly missed; and the affectionate regard in which he was held by each member makes his death a severe personal loss.

"Keenly appreciating these facts it is

"RESOLVED: that the flag on the Administration Building be placed at half mast; that the offices of the Commission be closed on the day of the funeral; that the Administration Building and Ballantine Gateway be draped for an appropriate period and that the Commissioners attend the funeral in a body.

"RESOLVED FURTHER: that the Secretary be directed to send an engrossed copy of this minute to the family, in token of the deep and sincere sympathy of the Commission."

The contract between Messrs. Olmsted Brothers and this Commission expired last June and was not renewed. The work of construction has so far advanced that there is no longer any necessity for a regularly employed landscape architect. Should special cases arise needing their advice special terms will be made with Messrs. Olmsted Brothers.

On the 26th day of April last the Commission received from the Board of Chosen Freeholders of the County of Essex the sum of \$500,000, the second and final installment of the appropriation of \$1,000,000 which the people



of the County, on November 4th, 1902 voted to expend for further construction. The bonds were sold at a very favorable price, the premium thereon being \$36,375.

The Board has proceeded as rapidly as possible with the various items of improvement outlined in its report for 1901. This statement was made the basis of the request for additional funds, and the Board announced that "Should the appropriation be granted the principal items will be carried out" (Vide 6th Annual Report Page 20). There has been no variation except where altered conditions, beyond the control of the Commission made changes necessary.

The largest single item of expenditure is that for bridges. Three have been completed, two at Branch Brook Park, and one at Park Avenue and one is under construction at Weequahic Reservation. The bridges in Branch Brook Park are at Park Avenue and Bloomfield Avenue. The former cost \$83,687.67 and the latter \$33,201.55. It is now possible to drive under Bloomfield Avenue from the Middle into the Northern Division, thus avoiding a grade crossing of a trolley road, and creating a continuity of park landscape, which makes a most pleasing impression upon the visitor. The contract for the improvement of the approaches to this bridge has also been let and completed at a cost of \$5,621.08. It includes the shaping of the banks adjacent to the structure, the completion of the road under the bridge, the replacing of the road and sidewalks over the bridge and the connection of the ponds in the Northern Division with the lake in the Middle Division by means of a waterway fifteen feet wide so constructed as to resemble a running stream. The area immediately adjoining the bridge has been planted with trees and shrubs. The Park Avenue bridge has also been finished, with the exception of the lamps with which it is planned to surmount the four pilons two at either end. Designs for these have been received



and are now under consideration by the Board. Great care is essential in their selection as they will form a prominent feature in the landscape situated between two open stretches of meadow and lake where they can be seen from almost any point in the Southern and Middle Divisions and at an elevation of thirteen feet above the bridge itself and thirty-nine feet above the level of the park. The clear span of this bridge is one hundred and thirty-two feet. The contract for the improvement of the approaches to this bridge has been let at a cost of \$30,850. This work is much more extensive than that at Bloomfield Avenue. It includes, in the first place, a change in the alignment of Park Avenue, which has been altered so as to pass over the bridge on a curve, doing away with the ugly effect of a straight line of roadway bisecting a park, and giving it more of the character of a Parkway. The grade of the Avenue has been much improved by heavy filling which eliminates the depression or pocket which formerly existed between Lake Street and the canal. The roadway in the Southern Division is to be carried under the bridge connecting in two directions with the drive in the Middle Division. An additional drive will unite Park Avenue near the canal with the roads in the Southern Division. The old roadway is to be filled up to the present improved grade and planted with trees and shrubs, the ground falling in a gentle slope from the new driveway to meet the grades of the Southern Division. The lakes in the middle and Southern Divisions will be joined under this bridge by a waterway fifty-five feet in width. This will double the boating facilities of the park, and add greatly to their attractiveness, making a continuous water surface of about five thousand feet from Orange Street to Bloomfield Avenue.

The third bridge is that carrying Park Avenue over the tracks of the Montclair branch of the Delaware, Lackawanna & Western Railroad. This work was done by the Railroad Company from plans accepted by the City of Newark and the Board of Chosen Freeholders before the Avenue came into the control of the Park Commission. These plans were modified, and made more in conformity with park design at the request of this Board, which was, however, compelled to bear the additional cost thereby occasioned, which to date is \$11,724.95. The modifications in the original plan widened the bridge to seventy feet, placed it in the centre of the avenue instead of at one side, and decreased the grade of the approaches

It was the intention of the Commission from the beginning of its work to connect Branch Brook Park with Sussex Avenue by a driveway which would enable visitors to avoid the trolley and railroad tracks crossing Orange Street at grade. It was decided to construct a subway at this point, carrying the park drive under Orange Street and the Railroad and continuing through the Duryee Street extension to Sussex Avenue. The Board was informed that the Railroad Company did not contemplate depressing at this point to a depth sufficient to interfere with this subway. This improvement was included in the list published in the report for 1901 and above alluded to, and when the endorsement of the people had been obtained at the polls arrangements were made for its execution. The Railroad plans, as finally adopted, however, provided for depression at this point to an extent that would have caused the tracks to cross the subway drive at grade. The Board was, therefore, forced to abandon its original idea and seek for some other solution of the very difficult problem of providing a safe and suitable entrance to the southern end of the park. There were only two schemes by which the trolley

and railroad tracks could be avoided. The first was to adhere to the subway design, carrying the driveway under the railroad, even at its lowered grade. This was soon found to be impracticable. It would necessitate a tunnel of such a depth that it would enter the park considerably below the level of the lake and would make it well nigh impossible to return to the level of the park roads. The only other alternative was to carry a parkway over Orange Street and the railroad by an overhead bridge. The objection to this plan is exactly the reverse of that to the other. The elevation of such a structure would be so high that it would be impossible to descend to the park drives without filling in a large part of the southern end of the park. Aside from its enormous cost which would be practically prohibitive, a viaduct of this character would be at best an unsightly object, and its approaches would destroy much work already completed in the Southern Division. The depressed railroad tracks could, of course, be bridged, crossing the trolley tracks on Orange Street at grade; but as there is to be a bridge of that nature at Eighth Avenue and Orange Street, as a result of the railroad's depression another so near it of similar character would be unnecessary. The Commission very reluctantly came to the conclusion, therefore, that its original plan would be the only feasible way of carrying out such an improvement, and as the railroad has rendered that impossible there seems to be no way of directly connecting Sussex Avenue with the Park avoiding all grade crossings. The problem of an appropriate entrance to the southern end of this park is therefore as yet unsettled.

Among the other improvements in this park which the Board has planned to carry out with the money still in hand are two shelters, one in the Middle and the other in the Northern Division.



The attendance at the play-fields has increased enormously, and some provision in the line of public comfort is essential. The design is to have the field house in the Middle Division on the slope which descends to the park level near Fourth Avenue. Accommodations will be provided for the children using the wading pools, as well as for those who patronize the athletic fields, for the present temporary shelter is entirely too small. A similar building will be erected in the Northern Division on what is known as The Knoll, a rise of ground just north of the tennis courts. The Northern Division Play-field, which is fifteen acres in area was underdrained, graded and seeded last year, but could not be used during the past season because the sod had not become sufficiently firm to withstand the constant usage to which the game fields are subjected. Next summer, however it will be opened and the athletic possibilities of the park will be trebled. Thereafter the field in the Middle Division will be reserved for children under fourteen. All others will be given permits at the new grounds. Park experience shows that it is wiser and safer to thus separate the children from the older players. The youngsters are less liable to be hurt, and by giving the larger playground to the older men there is less chance of injury to spectators or pedestrians from stray base balls or cricket balls. This field house will contain, besides toilets, lockers and accommodations for those wishing to play cricket, tennis, base ball and foot ball. There will probably be shower baths also. In this connection it is interesting to note the remarkable popularity of the playgrounds during the past summer. According to statistics kept by employees of the Board six thousand people have played base ball, the thirty-seven tennis courts have been constantly occupied, and the three cricket fields have been in use every clear Saturday. The average daily attendance of children at

the wading pool was four hundred or thirty thousand for the season, and at the sand court and little folks lawn one thousand and sixty-one, or seventy-five thousand for the season. There are fifty boats on the park lake, which were in almost constant use, and thirty canoes owned by private individuals and cared for by the lessee of the boating privilege.

The method of regulating the use of the gamefields is as follows: Each day is divided into periods varying in length according to the games played, three during the base-ball and six during the foot-ball season. Beginning on Monday permits are given out from the Secretary's office for the current week, and the first to apply is first accomodated. Requests by mail accompanied by return postage are attended to in order of their receipt. The permits for tennis are governed in the same way save that the permit entitles the holder to the use of a court for one week. The young people generally form tennis clubs and the permit held by one of their officers entitles all the club to the use of the court during the life of the permit.

The band stands erected at Branch Brook Park, Eastside Park, Westside Park and Orange Park last year, but not completed until fall were first used during the past season. They have all been lighted by electricity. The wiring was done at the expense of this Board, but the Public Service Corporation furnished the light free of charge on concert nights. The cost of the concerts in Newark is defrayed by an appropriation made by the Common Council: in Orange the money is raised by private subscription. The Commission is informed by those in charge, that the stands are entirely satisfactory, and a decided factor in the success of the concerts. The largest attendance at a Newark concert is estimated to have been thirty-five thousand.

The Newark Board of Education has conducted its summer school athletic department, in Branch Brook, Eastside and Westside Parks with the consent and cooperation of this Commission; and thousands of children have received lasting benefit from the healthful exercise taken in the open air, amid delightful scenic surroundings, and under the guidance of trained instructors. On August 12th, 1905, the season closed with a field day at Branch Brook Park at which two thousand children took part in athletic exhibitions, and the attendance was estimated at eight thousand.

The annual Fourth of July celebration of the City of Newark was held as usual in this park, at the Sussex Avenue end.

The border mound at the stable in the Northern Division has been constructed, and planted with trees and shrubs. The object of this border mound is to screen the utilitarian buildings which must of necessity exist in the parks, and make them as inconspicuous as possible. Successful examples of this planting out process as it is called are the stable at Orange Park and the greenhouses at Branch Brook Park, which are practically hidden by foliage.

Another improvement which has been begun at Branch Brook Park but is as yet unfinished is that of replacing the wooden steps, erected for temporary use only, with those of more permanent character. The contract which has been let for the sum of \$6,090.69 provides for the removal of wooden steps from all the parks. Those of concrete construction will be substituted. This material has been found to have for this purpose a durability practically as great as that of stone, and the saving in cost is very large, the cost of concrete being only about one fifth as much as that of stone. The cost for maintenance is the same, as the edges of



stone steps are as likely to chip off as those of well built concrete.

The Commission, during the past year, has made an earnest effort to reduce the number of mosquitoes in the territory under its control. Early in the spring a conference was held with the members of the Board of Health at which Professor John B. Smith, State Entomologist was also present. This Commission received many valuable suggestions as to the proper method of preventing the breeding of mosquitoes, and these were carefully followed. All the low swampy places, which existed chiefly in the reservations were filled, and the catch basins in the parks and the East Orange Parkway were regularly treated with kerosene oil. Professor Smith courteously placed at the service of the Board one of his assistants who made regular inspections of all suspected breeding places, and Professor Smith himself made several trips. The decrease in the number of mosquitoes has been gratifyingly noticeable, and the Board is now assured that there are no breeding places in any of the parks it controls. In response to a request from the Park Commission Professor Smith made a written report on this subject, which is as follows:

May 16th, 1905.

DEAR SIR:—Referring to the mosquito condition in Branch Brook Park Newark, the Commission appears to have done all that lies within its power at the present time. In pursuance of my promise to the Commission, Mr. Brehme has been in the park at short intervals, and on Friday of last week, made a very thorough investigation. He followed the brook from one end to the other, and found no breeding in any place. All the catch basins were examined, and all in which there was any water whatever, had a coating of oil, and were safe. At that

time, there was not a specimen breeding in the park.

In the brief survey made yesterday, I came to the conclusion that except in the catch basins, there is no chance for mosquito breeding; the brook, if it is kept in its present condition, is absolutely safe. Fish, and other natural enemies that occur in it, are sufficient to keep down the development of larvæ. There is absolutely nothing more that can be done by the Commission at the present time. That there are some mosquitoes in the park is unfortunately true. Such of them as were seen and captured all proved to be *Culex cantator*. This is one of the salt marsh specimens; and there is no doubt but that a small migration from the Kearny marshes has reached the park. These will remain for a considerable time, and some may be in evidence all during the summer. The difficulty is that the very feature that makes the park so beautiful, the masses of shrubbery, affords hiding places for these creatures, to which they resort during the day, and from which they come at night, or even when disturbed attack passers by in day light.

This is something that is entirely out of the power of your Commission to prevent. It means that the work on the salt marshes must be extended to include other municipalities than the City of Newark.

Sincerely yours,

JOHN B. SMITH.

Professor Smith, also in a report to the Committee on Mosquito Extermination held recently said "The Park Commissioners have absolutely prevented the development of mosquitoes in the parks, and there has been less breeding of fresh water mosquitoes than ever before in the history of Newark." It is gratifying to be able to cooperate in the crusade for the destruction of these

pests for their elimination would be a great boon to the entire community. This Board will continue to take whatever preventive measures are deemed effective by those who have given the subject special study.

The question of a proper water supply for Branch Brook Park is still being discussed by the Board. The driven well which was sunk last year yields about two hundred thousand gallons per day, but this is hardly sufficient to keep the brook in the Northern Division in proper condition by creating a sufficiently rapid flow of water. The surface of the stream is covered, in places, with a green scum or algæ, which a current would soon remove. The so-called Bordeaux Mixture has been tried in an effort to destroy it, but in spite of the success claimed for it in other localities it has been a failure. The item of water for the drinking fountains and for watering the plantations and drives is a heavy one, as the Commission is now required to pay for it at meter rates. Several efforts have been made, but without success, to persuade the Board of Street and Water Commissioners of the City of Newark to permit the Commission to use the water without charge, at least so long as the supply is more than sufficient for the wants of the City. It was suggested that Newark pays three-quarters of the maintenance of the parks, and a charge made by the City would be almost entirely paid by a tax levied on the City. Some years ago the Board placed what are known as bubbling cups on all its drinking fountains. This is a device by which the water is thrown out of the pipe with force enough to permit a person to drink without the use of a metal cup. It is the best method known from a sanitary standpoint as it prevents entirely the spread of contagious diseases by contact with a vessel which has received germs from contaminated lips. These bubbling cups flow continuously, however, and it was found that the maintenance



appropriation was insufficient to permit of paying for water at city rates. The old fashioned metal cups had to be again put into use. The Bacteriologist of the Newark Board of Health has been requested to make a careful examination with a view to ascertaining whether these are contaminated. If they are discovered so to be the drinking fountains in the parks will have to be done away with unless a cheaper method of securing water can be found. The Engineer of this Board has practically completed a device which he thinks will permit the bubbling cups to be used and their flow so regulated that the water will not be wasted.

The largest undertaking of the park system, outside of Branch Brook Park, is the improvement of the lake at Weequahic Reservation. When this land was acquired it contained a large swamp about eighty acres in extent, which was in most places sluggish and shallow, and about half of which was covered with cat tails, bogs and other water weeds. It was the breeding place of millions of mosquitoes, and was a decided menace to the health of the surrounding population. The Board realized that it is one of the cardinal principles of a proper park plan to take land undesirable in character, and difficult of improvement by private enterprise, and develop it into an attractive pleasure ground, to make glad the waste places. In consonance with this idea the character of the marsh was studied. It was found that there was an abundance of water of most excellent quality from springs to create a lake deep enough to prevent the recurrence of bog growths. A dam was accordingly built at the northern end of the lake and the water raised five feet. The bogs rose to the higher surface detaching themselves entirely from the bottom. A contract was then awarded for ridding the lake of these floating growths at a cost of \$32,000. This work has just been completed. The total cost of improving the

lake including the work not covered by this contract is \$48,741.87. The method employed was the use of a dredging machine on a scow having an orange peel bucket, so called, of one cubic yard capacity. This bucket is divided into four sections which opens as it descends to the surface, and closes over the material to be removed; when it is again lifted, moved to the point of deposit and emptied. The scow was floated about the lake and the bogs poled and dragged near enough to it to be raised by the dredge. When taken from the water they were placed at points where filling is desired or in piles where they can be burned. The task was a great one as the bogs ranged from four to eight feet in depth and contained in some instances three hundred cubic yards. It was considered remarkable that bogs of this depth and size would float at all, and the successful accomplishment of the undertaking is a matter of great satisfaction to the Board. \$1,000 more was spent in deepening the southern end of the lake. The level was then temporarily lowered to permit of the removal of all stumps, sunken bogs and other obstructions to boating and to properly clean the shores. This work was done by laborers employed by the Commission, and cost \$1,901.81. The high water level was restored and Essex County now has as fine a lake as can be found in this vicinity. It is four thousand, four hundred feet long, and its width varies from four hundred feet at the northwest, to one thousand, three hundred feet at the widest, portion. The lake is fed entirely by springs so that the water is beautifully clear and its surface will afford an ideal place for boating and skating. The rise in the level has increased the lake's area by about five acres. The elimination of this swamp had a marked effect upon the mosquitoes, and their decrease in this locality has been so decided as to cause much comment. The Board intends to erect, on

the shore of this lake a building for the use of those who wish to take advantage of the boating and skating facilities, and it is expected that when the lake is opened for aquatic sports it will be the most popular sheet of water in the county. Not only does its size and the clearness of the water render it attractive, but it lies in a picturesque hollow surrounded by rolling hills, heavily timbered with magnificent specimens of oak, beach, tulip and chestnut, which make the landscape exceedingly beautiful. Owing to its great area there will be no attempt made to clean its entire surface of snow in the skating season, but it will be properly lighted with electric lights, placed along its shores.

The Board has filled in the swampy mosquito-breeding spots in this Reservation with dirt removed in the work of widening the roads. A contract was let last spring at a cost of \$13,287.80, about \$1,500 less than the estimate published in the last report for the construction of a bridge over the tracks of the Lehigh Valley Railroad Company. This is the fourth in the series of park bridges erected with the proceeds of the last appropriation. Its purpose is to connect the park drive, which enters the reservation from Meeker Avenue and skirts the easterly and southerly sides of the lake, with Elizabeth Avenue. It will be a steel girder structure of three spans, the centre one of sixty two feet, and the others forty nine feet each. The total length of the bridge from end to end will be one hundred and sixty five feet. The crown of the roadway is twenty eight feet two inches above the railroad rails, giving a clearance on the underside of twenty two feet six inches above the track. The bridge is of a total width of thirty feet, allowing for a twenty foot drive and an eight foot side walk on the northerly side. A pipe railing will be on both sides of the bridge and will extend beyond the wing walls. The bridge will probably be lighted with



naptha lamps such as are now used in the Southern Division of Branch Brook Park, although electricity may be decided upon. The concrete abutments have been finished, and the steel portion practically completed, though some work still remains to be done. The approaches to the bridge have been begun and will be finished before Spring, it is expected. There is an athletic field in this reservation, and it has been in constant use for tennis, base ball and foot ball. The Commission has, moreover, requested an expert in such matters to advise it as to the feasibility of laying out a golf links, and to indicate what, in his judgment, will be a proper course. If this is done there will hardly be an outdoor game which does not have its place in one of the parks. Grounds are now provided at Branch Brook Park for cricket, base ball and foot ball; at Eastside Park for tennis and croquet; at Westside Park for tennis and running; at Orange Park for tennis and at Wat-sessing Park for running and cycling. There is also an open air gymnasium in the Southern Division of Branch Brook Park.

The Road Horse Association of New Jersey has as usual held its weekly matinees at the track at Weequahic Reservation. The track has been used, too, for bicycle races and for automobile meets.

At Westside Park a contract has been let and completed at a cost of \$1,360 for the coping of the retaining walls with concrete. The interior walls are likewise being coped with the same material. As in the other parks the existing temporary wooden steps are being replaced with those of concrete construction. The plantations here have been remarkably successful, especially a fine avenue of linden trees on the esplanade along Seventeenth Street. This land, with the exception of the corner of Fifteenth Avenue and Fifteenth Street and

a point in Vailsburgh is the highest in Newark, and from it can be had a fine view of the Orange Mountains. There has been some difficulty in maintaining the level of Westside Lake, and after considerable investigation the Engineer has concluded that this is due to seepage through the banks caused by the settling of the northerly portion of the park. A small area of ground here was part of what is known as Old Magnolia Swamp, which is apparently an almost bottomless bog. The level of the lake will be lowered and proper repairs made.

Montclair Park has been completed. This is the latest addition to the system. It was presented to the Town of Montclair by C. W. Anderson Esq., and the care custody and control thereof vested in the Park Commission by ordinance. The land, like so much of that hitherto improved by this Board was low and marshy in character and considerable outlay was necessary for underdrainage, which makes no showing in the finished park. It is a very important factor, however, transforming an unsanitary swamp into a healthful pleasure ground. The contract for the improvement of this park amounted to \$15,622.23. The work consisted of grading, storm water and underdrainage, the laying out of gravel walks and the construction of a water system. Besides this the park has been planted at a cost of \$3,800. Seventeen thousand five hundred trees and shrubs have been set out. They are divided as follows: two hundred evergreen trees, six hundred deciduous trees, twenty-two hundred evergreen shrubs and fourteen thousand five hundred deciduous shrubs. Fourteen thousand of these trees and shrubs were grown in the Commission's own nursery at Weequahic Reservation. The park has also been seeded and the lawns are in fine condition. The cost was \$4,675.

At South Mountain Reservation the land ac-

quirement has been practically completed, making the total acquirement cost of this reservation \$285,422.47. This figure may be increased, however, by jury awards in some of the condemnation cases. There are still several pieces of land of inconsiderable area whose owners cannot be found. It is expected that these can be secured during the coming year and that their cost will not exceed \$5,000.

Last winter the City of Orange sought the consent of the Park Commission to the building of a new distributing reservoir in this reservation in connection with the City water supply system. There are now two reservoirs within the boundaries of this park which were established many years before the reservation lands were acquired by this Commission. An enabling act was passed by the last session of the Legislature at the request of the City authorities. The Commission was favorably disposed toward the proposition from the start. It was influenced in arriving at this conclusion, not only by a desire to cooperate, whenever possible, with other municipal bodies, in carrying out public improvements but also by the special circumstances of this case. Orange had located its water supply system in the South Mountain Valley long before the Commission acquired the surrounding land. Expansion was absolutely essential, yet without the cooperation of this Board was impossible. The Park Commission, therefore, did not feel like standing in the way of needed enlargement. Moreover a reservoir when properly treated is an attraction, rather than a detriment to a park landscape.

An agreement was accordingly entered into between the City of Orange and the Commission, the main features of which are as follows: The Commission agreed to acquire and has acquired, title to two small pieces of land within its boundaries, but at that time not secured.



The use of this land and some adjoining it amounting in all to three and one half acres was granted to the City of Orange as long as it maintains thereon a distributing reservoir, the fee, however remaining in the Commission. The cost of acquisition is to be paid by the City of Orange and amounts to about \$1,000, subject to increase by appeals in condemnation. The City also agrees to construct and maintain the reservoir as much in conformity with park design as is consistent with its use. Finally it agrees to discharge into the brook which flows over Hemlock Falls, as long as the reservoir is maintained, water at the rate of seven hundred and fifty thousand gallons per day from May 1st to November 1st of each year. This, from a park standpoint, is of great importance, and will be a splendid improvement to the reservation. Hemlock Falls is one of the beauty spots of this park, and is widely known throughout the County. A small stream flows down the west side of the first mountain through a wild and rocky gorge, finally falling over a precipitous cliff thirty-one feet in height into the valley below. The flat land at the foot of the fall is wooded with some fine specimens of hemlock, and has always been a favorite resort for nature lovers. Unfortunately with a perversity common to many mountain torrents it is practically dry in summer. This agreement insures a handsome fall at all seasons, which will greatly enhance the beauty of the gorge, and add to its landscape value. Hereafter Hemlock Falls will be a fact as well as a name. This water is not wasted, as it returns to the reservoir after going over the falls.

It may be said in this connection that South Mountain Reservation has been of inestimable benefit to the water supply system of Orange. By completely surrounding it with a park all sources of pollution have been removed. The upbuilding of the neighborhood

made this an increasing danger and threatened the purity of the supply. As the reservation includes the slopes of both mountains as well as the valley between there can be no recurrence of these polluting agencies. By insuring the preservation of the surrounding forests, also, the water shed has been permanently protected, and any considerable diminution of the supply prevented. Here again is an instance of the practical utilitarian value of park undertakings, a proof of their use quite apart from æsthetic or landscape considerations.

The completion of the East Orange Parkway is still waiting action by the authorities of the City of East Orange in the matter of the storm water drainage of that portion lying between Main Street and Central Avenue. The Board cannot proceed with this improvement until an outlet is provided for the drainage of the parkway; and this lack of a suitable outlet prevents the construction of an independent system for the parkway alone. A commission has been appointed under a recent act of the Legislature to consider the subject and to proceed in such manner as shall appear to be for the benefit of all the property in the neighborhood. Several conferences have been held between this Drainage Commission, the Park Commission and the authorities of East Orange, and a drainage plan has been practicably agreed upon.

This Board has appropriated \$4,500 for the further improvement of Park Avenue and \$1,500 for the resurfacing of Prospect Avenue, both of which are controlled by the Park Commission and the work will be finished during the coming season.

Before leaving the subject of park construction it seems appropriate to say a few words as to new park enterprises. Several requests have been made to the Commission during the past year for the location of new

parks of small area in thickly settled portions of the county. This Board has always been in favor of neighborhood parks, and realizes that as the population of a community grows, their number should increase also. In the first annual report, page 8 the following statement is made. "Another important feature in the county scheme is the location of neighborhood parks in the more crowded settlements where they can be enjoyed without the expense of transportation."

In the second report, that for 1897, the lands acquired were classified under four general heads, page 1. The first class is neighborhood parks, the report continues "Neighborhood parks, located near the centres of dense population, and intended for those who desire, at no great distance, a glimpse of more natural and agreeable surroundings. They have been very happily called the lungs of a great city, and are now everywhere recognized as the most important part of an extended park plan. New York City is paying the penalty of neglectful delay in not sooner providing such parks, and during the past year has appropriated \$3,000,000 for this acquirement, realizing how essential they are in every municipality."

In its report for 1901, the Sixth, the Commission said, page 11, "The policy of the Board has always been to establish, where practicable, neighborhood parks near thickly settled districts."

It should be frankly stated, however, that the Commission has no funds with which to carry out any such undertakings. In the report issued just before the last appropriation was voted by the people, a statement was made showing clearly what the money would be used for if received. This schedule included the establishment of no new parks. The Board also said, report for 1901, page 18 "The Commission would be unwilling to take the initiative in asking for any further appropriations."



With this report before them the people approved the contemplated expenditure. The Park Commission, therefore, feels that it must vary this program as little as possible, and after carrying out its essential features the construction account will be practically exhausted. The Board itself, at this time, can ask for no more money for construction. Some of the new projects presented have merit, however, and would if carried out, be beneficial to the community, and improve the general park system. But the initiative in securing additional funds must come from the people themselves. If they desire more neighborhood parks and can put this Board in possession of sufficient money to secure them, the Commission will gladly undertake to incorporate them into the County System. The Commissioners believe that the time will come when the necessity of such additions will be so clearly manifest that they will be secured.

As the parks develop and their use by the public increases, the problems of maintenance gradually take the place of those of construction. The Board has considered several of these questions during the past year. Among them is that of the park police. It is necessary to have a force of men especially trained to protect the enormously valuable property which the County has acquired in the establishment of the parks. But the duty of a park guard differs materially from that of a member of the municipal force. Crimes in parks are rare. The environment of beautiful landscape, pure air and bright sunshine is not conducive to the development of man's evil instincts. The park visitor needs to be warned rather than arrested, to be taught instead of fined. As a large per cent. of those using parks are children and young men and women the officer must have sufficient tact and discretion to guide and control them in such a manner that the rules will be properly observed without lessening the enjoyment of the visitors.

It may be said that there is practically no criminal side to park police duty. Almost all infractions of the regulations arise from thoughtlessness or the inexperience of youth. The rules governing the use of the parks are made with a view solely to their better enjoyment by all the people and the Board has endeavored to secure officers who will courteously explain them, yet firmly insist that they be observed. There are now twenty officers employed in the nine parks and reservations under the direction of a Chief. During the past summer the park police force was assisted in handling the crowds at the band concerts by details from the regular force of the Cities of Newark and Orange. These officers were of great assistance, and this Board gratefully acknowledges the courtesy of the Police Commissioners of Newark and Orange in thus cooperating with it. The chief difficulty of the park policemen is to properly impress upon the people that the flowers and shrubs must not be touched. This is particularly so in the reservations, and citizens have even written the Board demanding that they be allowed to gather flowers or plants. Few realize that there is not enough in all the parks for all the people, and that a beautiful landscape cannot be developed, if its constituent parts are continually carried away. This Board has striven to impress this fact upon all visitors, and appeals, as it has in former reports for assistance in creating a public sentiment against this vandalism: The Commissioners believe it arises more from thoughtlessness than from evil motives. The following circular reproduced from the report for 1903, page 20, was read in every public school in the county, and is handed to everyone who visits the reservations.

“The Essex County Park Commission has been greatly hindered in its efforts to make attractive the parks and reservations under its control, by the constant picking of flowers and shrubs. This is particularly the case in

the Mountain Reservations, Eagle Rock and South Mountain. The Commission desires to keep these large stretches of mountain landscape as nearly as possible in their original state that the public may thoroughly enjoy their beautiful natural scenery. Thousands of dollars of public money have been spent with this end in view. This object cannot be achieved unless the shrubs and flowers are permitted to grow undisturbed.

During the present year the reservations have been so stripped of flowers and flowering plants that they are rapidly being denuded. The rule of the Commission in this regard is as follows:

No person shall cut, break, deface, defile, or ill-use any building, fence, tree, bush, plant, or other thing belonging to the Essex County Parks, or have possession of any part thereof.

There is a penalty for the violation of this rule. The Essex County Park Commission, therefore, earnestly urges that all visitors to the parks and reservations abstain entirely from picking or having in their possession, any flower, branch or shrub therein: and moreover that they do what they can to persuade others to live up to this rule."

So important does the Board conceive this subject to be that it intends to apply to the next Legislature for an enlargement of its police powers in order that fines may be imposed for neglect to comply with these rules.

The report of the Treasurer follows.

Respectfully submitted,

CYRUS PECK,  
FREDERICK M. SHEPARD,  
JOHN R. HARDIN,  
ROBERT S. SINCLAIR.



## Treasurer's Report.

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The Treasurer submits herewith a tabulated statement of the receipts and expenditures for the years ending December 31st, 1904 and December 31st, 1905.

Cash on hand December 31st, 1903.....	\$585,781.62
Construction fund,.....	\$483,129.30
Maintenance fund,.....	102,652.32
	<hr/>
	\$585,781.62

# CONSTRUCTION, 1904. RECEIPTS.

Cash on hand December 31st, 1903,.....		\$483,129.80
Received from Essex County,.....	\$14,163.00	
Interest,.....	8,364.47	
Sales, wood, old material, etc.....	8,817.55	
		<u>31,345.02</u>
		\$514,474.32

## DISBURSEMENTS.

### LAND.

Branch Brook Park,		
Eastside Park,		
Westside Park,		
Orange Park,		
Watsessing Park,		
Montclair Park,		
Weequahic Reservation,		
Eagle Rock Reservation,		
South Mountain Reservation,.	\$23,369.48	
Parkways,.....	4,239.49	
		<u>\$27,608.97</u>

### PARKS, RESERVATIONS AND PARKWAYS,

Branch Brook Park,.....	\$162,193.70	
Eastside Park,.....	1,623.74	
Westside Park,.....	3,177.80	
Orange Park,.....	2,336.19	
Watsessing Park,.....	821.54	
Montclair Park,.....	16,504.84	
Weequahic Reservation,.....	25,390.39	
Eagle Rock Reservation,....	1,168.68	
South Mountain Reservation,.	7,025.17	
East Orange Parkway, .....	15,618.98	
Park Avenue,.....	760.70	
Prospect Avenue,.....	513.58	
		<u>\$237,135.31</u>

### ITEMS.

Paving and Sewerage,.	\$ 6,644.43
Trees and Plants,.....	12,563.62
Labor,.....	86,015.61
Tools and Implements.	8,711.12
Gardening.....	5,950.98
Buildings and Bridges,	109,841.00
Fences and Fountains,	6,887.69
Miscellaneous,.....	520.86

\$237,135.31

### OFFICE.

Legal,.....	\$ 2,026.48	
Architects and Engineers,....	12,260.45	
		<u>\$ 14,286.93</u>

Cash on hand December 31st, 1904,.....	\$279,031.21
	<u>\$235,443.11</u>
	\$514,474.32

MAINTENANCE,  
1904.  
RECEIPTS.

Cash on hand December 31st, 1903,.....		\$102,652.32
Received from Interest,.....	\$1,026.52	
Rents,.....	\$2,591.75	3,618.27
		<hr/>
		\$106,270.59

DISBURSEMENTS.

PARKS, RESERVATIONS AND PARKWAYS,

Branch Brook Park,.....	\$55,564.07	
Eastside Park,.....	2,960.56	
Westside Park,.....	5,977.57	
Orange Park,.....	6,941.75	
Watsessing Park,.....	1,118.28	
Weequahic Reservation,.....	6,996.92	
Eagle Rock Reservation,.....	3,300.37	
South Mountain Reservation,.	8,795.87	
East Orange Parkway,.....	2,023.69	
Park Avenue,.....	5,715.00	
Prospect Avenue,.....	3,469.04	\$102,863.12
		<hr/>

ITEMS.

Police,.....	\$ 11,844.50
Wages,.....	60,801.20
Tools and Supplies,...	30,217.42
	<hr/>
	\$102,863.12

OFFICE.

Petty cash,		
Traveling,.....	\$ 314.35	
Stationery and printing,.....	1,367.02	
Office supplies,.....	61.49	
Salaries,.....	9,252.35	
Rents, telephones etc.....	1,733.96	\$ 12,729.17
		<hr/>
		115,592.29

Excess of expenditures over receipts,.....	\$ 9,321.70
	<hr/>
	\$106,270.59

# CONSTRUCTION, 1905. RECEIPTS.

Cash on hand December 31st, 1904,.....		\$235,443.11
Received from Essex County,.....	\$535,702.60	
Interest,.....	9,844.30	
Sales, wood old material, etc.....	10,905.45	
		<hr/> 556,452.35
		<hr/> \$791,895.46

## DISBURSEMENTS.

### LAND.

Branch Brook Park,.....	\$ 222.63	
Eastside Park,		
Westside Park,		
Orange Park,		
Watsessing Park,		
Montclair Park,		
Weequahic Reservation,		
Eagle Rock Reservation,		
South Mountain Reservation,.	38,445.98	
Parkways,.....	5,000.00	
		<hr/> \$43,668.61

### PARKS, RESERVATIONS AND PARKWAYS.

Branch Brook Park,.....	\$74,464.65	
Eastside Park,.....	157.41	
Westside Park,.....	2,895.69	
Orange Park,.....	494.49	
Watsessing Park,.....	18.98	
Montclair Park,.....	7,989.63	
Weequahic Reservation,.....	35,901.08	
Eagle Rock Reservation,.....	338.28	
South Mountain Reservation,.	6 251.63	
East Orange Parkway,.....	3,973.39	
Park Avenue,.....	7,044.29	
Prospect Avenue,.....	993.61	
		<hr/> \$140,523.13

### ITEMS.

Paving and sewerage,.	\$ 6,219.19
Trees and plants,.....	10,438.09
Labor,.....	68,559.62
Tools and Imple-	
ments,.....	1,265.17
Gardening materials,.	3,960.21
Buildings and bridges.	49,355.09
Fences and fountains,.	46.00
Miscellaneous,.....	679.76
	<hr/>

\$140,523.13

### OFFICE.

Legal,.....	\$ 1,418.72	
Architects and engineers,.....	10,364.58	
		<hr/> \$ 11,783.30

Cash on hand December 31st, 1905.....

\$195,975.04

\$595,920.42

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\$791,895.46



# MAINTENANCE, 1905. RECEIPTS.

Received from Essex County.....	\$118,586.25	
Interest.....	1,185.86	
Rents.....	2,858.50	\$122,630.61

## DISBURSEMENTS.

### PARKS, RESERVATIONS AND PARKWAYS.

Branch Brook Park.....	\$45,898.14	
Eastside Park.....	3,430.70	
Westside Park.....	5,385.16	
Orange Park.....	7,488.46	
Watsessing Park.....	1,298.94	
Montclair Park.....	768.89	
Weequahic Reservation.....	5,606.02	
Eagle Rock Reservation.....	2,857.91	
South Mountain Reservation..	5,957.15	
East Orange Parkway.....	2,718.49	
Park Avenue.....	1,976.10	
Prospect Avenue.....	79.90	\$83,465.86

Excess of expenditures over receipts in 1904,  
made good from this year's maintenance fund,. \$ 9,321.70

### ITEMS.

Police.....	\$12,019.36
Wages.....	49,347.21
Tools and supplies....	22,099.29
	<hr/>
	\$83,465.86

### OFFICE.

Petty cash.....	\$ 50.00	
Traveling.....	216.00	
Stationery and printing....	1,022.58	
Office supplies.....	50.57	
Salaries.....	10,168.01	
Rents, telephones,etc.....	1,475.01	\$12,982.17

	<hr/>	\$105,769.73
Cash on hand December 31st, 1905.....		16,860.88
	<hr/>	\$122,630.61

The deficiency December 31st, 1904 is due to the fact that the maintenance appropriation first became available to the Board November 1st 1903. This appropriation had to carry the Board to December 31st, 1904, a period of fourteen months, as the maintenance appropriation for the year 1905 was not received until January 1905. Hereafter the maintenance monies received from the County will be applicable to the fiscal year of the Board in which they are received, that is from January 1st to December 31st. The deficiency above shown the Board has overcome by economies in maintenance during the year 1905 and the Board in 1905, from the appropriation for maintenance for that year, notwithstanding the deficit with which the fiscal year opened, closed the year 1905 with a balance of \$8,000. The actual balance shown of \$16,860.88 is subject to outstanding bills of about \$9,000.

JOHN R. HARDIN,

Treasurer.

I certify that I have examined the books of the Commission and the items of receipts and vouchers for all payments. I find all items correctly stated.

RICHARD F. STEVENS,

Certified Public Accountant.









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